Missouri Department of Health & Senior Services

Health Update:

Destruction of influenza A (H2N2) proficiency testing samples

May 3, 2005

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FROM: JULIA M. ECKSTEIN

DIRECTOR

SUBJECT: Destruction of influenza A (H2N2) proficiency testing samples;

interim guidance for Biosafety Level 3-enhanced biocontainment

for work with human influenza A (H2N2) viruses

All influenza A (H2N2) samples that were prepared by a private contractor laboratory and distributed to laboratories and health care facilities in 18 countries as part of influenza proficiency testing panels have been accounted for and are reported by the proficiency testing organizations that sent out the panels as being destroyed. The organizations received written confirmations of destruction from their client laboratories that received these samples. The U.S. Department of Health and Human Services (HHS), the Centers for Disease Control and Prevention (CDC), and the World Health Organization (WHO) are continuing follow up investigations to evaluate the cause of the incident and determine how best to prevent similar incidents from occurring in the future.

As of May 3, 2005, there have been no confirmed reports of H2N2-related illness associated with possible exposure to the proficiency testing samples. CDC and other public health agencies will continue to follow up reports of possible cases of influenza-like illness among laboratory workers occurring after working with the samples that contained H2N2. See the Health Alert Network (HAN) notice of April 15 (available on the CDC website at http://www.cdc.gov/flu/h2n2situation.htm) for more information about these follow-up procedures. CDC and HHS are also in touch with foreign governments and WHO regarding investigations of any reports of possible H2N2-related influenza-like illness worldwide.

As reported in the HAN notices of April 13 and April 15, the influenza A (H2N2) samples were included in laboratory proficiency testing panels distributed to U.S. and international laboratories from October 2004 through March 2005. Following full characterization of the influenza A isolate submitted to Canadian public health authorities, investigators recognized the virus in the proficiency testing kits as an influenza A (H2N2) virus that closely resembled the viruses circulating in 1957 and 1958; influenza A (H2N2) is a virus that has not circulated among humans since 1968. Because of the potential public health risk associated with this virus, public health agencies, including WHO, HHS, and CDC, recommended immediate destruction of all the proficiency test samples to prevent reintroduction of the strain.

Certification of the destruction of the H2N2 samples contained in the proficiency testing kits effectively ends the immediate risk associated with the distribution of these kits, but it is only the first step of the public health response. CDC has formed a multi-agency task force that will conduct an extensive investigation into the circumstances that led to the H2N2 samples being included in the proficiency testing kits. It is expected that the findings of the task force will be used to help improve the proficiency testing system and prevent an occurrence of a similar event in the future.

Additionally, CDC is working with the National Institutes of Health (NIH) to raise the recommended Biosafety Level for laboratory work involving some human influenza A (H2N2) viruses. CDC and NIH recommend that wild-type non-contemporary human influenza A (H2N2) strains should be handled by using Biosafety Level 3 and Animal Biosafety Level 3 practices, procedures, and facilities, with rigorous adherence to additional respiratory protection and clothing change protocols. Negative pressure, HEPA-filtered respirators or positive air-purifying respirators (PAPRs) are being recommended for use. Important considerations in working with these strains are the number of years since an antigenically related virus last circulated and the potential for presence of a susceptible population. For additional information about this interim laboratory guidance, please refer to CDC's website at http://www.cdc.gov/flu/h2n2bsl3.htm.

For additional information about the influenza A (H2N2) situation, please refer to CDC's website at http://www.cdc.gov/flu/h2n2situation.htm.